Please add the following claims.

78. The method of claim 64 wherein the mammal is suffering from or susceptible to undesired thrombosis.

79. The method of claim 72 wherein the mammal is suffering from or susceptible to undesired thrombosis.

REMARKS

Claims 64 and 72 have been amended and claims 78 and 79 have been added. No new matter has been added by virtue of the amendments and new claims. For instance, support for the new claims appears in the original claims of the application. The claim amendments correct a typographical-type error.

Claims 64-77 were rejected under 35 U.S.C. 112, first paragraph. As grounds for the rejection, the terms "post-operative complication" and "immune disorder" are addressed.

While Applicants fully disagree with the rejection, the objected-to terms are not recited in the pending claims. In view thereof, withdrawal of the rejection is requested.

Claims 64-72 were rejected under 35 U.S.C. 112, second paragraph.

It is believed a number of the grounds of rejection.

For instance, the pending claims do not recite post-operative complication or preferably. The noted typographical error in claim 64 has been corrected. The phosphate structures have been further clarified as well-recognized and understood by those skilled in the art.

Applicants respectfully disagree that any issues of indefiniteness are presented by the claim language of "the compound comprises". Such language is recited in numerous issued U.S. patents, indicating that the language is acceptable under Section 112, second paragraph. The person skilled in the art understands the language.

Applicants also respectfully disagree that any indefiniteness exists with respect to recitation of $-PO_3$. The PO3 group is well-known in the chemical field, and persons understand that the group can exist as anions or protonated. See, for instance, the enclosed copy of page 1064 of Morrison and Boyd, Organic Chemistry (3rd ed.).

In view thereof, reconsideration and withdrawal of the rejection are requested.

Claims 64-67 and 70 were rejected under 35 U.S.C. 102 over Chem abs. 966 (CA:126:324966).

Claims 64-66, 68 and 70 were rejected under 35 U.S.C. 102(e) over Hartmann et al. (U.S. Patent 5,854,227).

Claims 64-66, 68 and 70 were rejected under 35 U.S.C. 102(b) over Lehtinen (U.S. Patent 5,403,829).

Claims 64-66, 68-71, 72 and 75-77 were rejected under 35 U.S.C. 103 over Chem. Abtr. 820 (CA 130:209820).

Claims 64, 67, 69, 71-73, 75 and 77 were rejected under 35 U.S.C. 102 over Chem abs 653 (CA: 123:33653).

Claims 64, 67, 69, 71-73, 75 and 77 were rejected under 35 U.S.C. 102 over Chem abs 868 (CA:121:179868).

Claims 64-67 and 70 were rejected under 35 U.S.C. 102(b) over Schwab et al. (U.S. Patent 5,006,515).

Claims 64-66, 68-72 and 74-77 were rejected under 35 U.S.C. 102(a) as being anticipated by Chem abs. 705 (CA:99:212705).

Claims 64-66, 68-69, 71-72, 74-75 and 77 were rejected under 35 U.S.C. 102(a) over Chem abs 121 (CA:107:59121).

For the sake of brevity, the several rejections are addressed in combination. Each of the rejections are traversed.

The cited documents do not describe the diseases or disorders recited in independent claims 64 and 72.

Accordingly, the rejections should be withdrawn. See *In re Marshall*, 198 USPQ 344, 346 (CCPA 1978) ("[r]ejections under 35 U.S.C. §102 are proper only when the claimed subject matter is identically disclosed or described in the prior art.").

It is believed the application in condition for immediate allowance, which action is earnestly solicited.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims:

64. **(Amended)** A method for treating a mammal suffering from a blood coagulation disorder, [post-operative complication, an immune disorder, atherosclerosis or inflammation,] comprising administering to the mammal a therapeutically effective amount of a compound of the following Formula I:

$$Ar\text{-}(CXY)_m\text{-}(Het)_{0 \text{ or } 1}\text{-}(\cancel{CX^1Y^1}\ \underline{CX'Y'})_n\text{-}C(Z)_p\text{-}(PO_3)_{3-p}$$

I

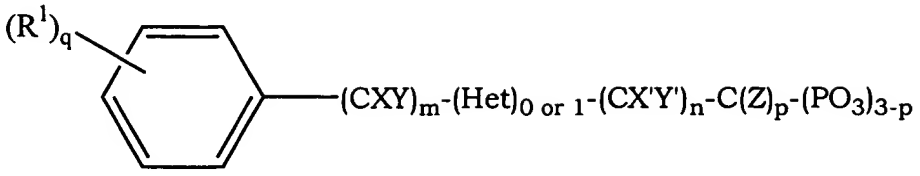
wherein Ar is optionally substituted carbocyclic aryl or optionally substituted heteroaryl;

Het is optionally substituted N, O, S, S(O) or $S(O_2)$;

each X, each Y, each X', each Y' and each Z are each independently hydrogen; halogen; hydroxyl; sulfhydryl; amino; optionally substituted alkyl ~~preferably~~; optionally substituted alkenyl; optionally substituted alkynyl; optionally substituted alkoxy; optionally substituted alkylthio; optionally substituted alkylsulfinyl; optionally substituted alkylsulfonyl; or optionally substituted alkylamino;

m and n each is independently an integer of from 0 to 4; p is 1 or 2; and pharmaceutically acceptable salts thereof.

72. **(Amended)** A method for treating a mammal suffering from a blood coagulation disorder, [post-operative complication, an immune disorder, atherosclerosis or inflammation,] comprising administering to the mammal a therapeutically effective amount of a compound of the following Formula II:



II

wherein Ar is optionally substituted carbocyclic aryl or optionally substituted heteroaryl;

Het is optionally substituted N, O, S, S(O) or $S(O_2)$;

each X, each Y, each X', each Y' and each Z are each independently hydrogen; halogen; hydroxyl; sulfhydryl; amino; optionally substituted alkyl ~~preferably~~; optionally substituted alkenyl; optionally substituted alkynyl; optionally substituted alkoxy; optionally substituted alkylthio; optionally substituted alkylsulfinyl; optionally substituted alkylsulfonyl; or optionally substituted alkylamino;

each R^1 is independently halogen; amino; hydroxy; nitro; carboxy; sulfhydryl; optionally substituted alkyl; optionally substituted alkenyl; optionally substituted alkynyl; optionally substituted alkoxy; optionally substituted alkylthio; optionally substituted alkylsulfinyl; optionally substituted alkylsulfonyl; optionally substituted alkylamino; optionally substituted alkanoyl; optionally substituted carbocyclic aryl; or optionally substituted aralkyl;

m and n each is independently an integer of from 0 to 4; p is 1 or 2; q is an integer of from 0 to 5; and pharmaceutically acceptable salts thereof.

Third Edition

ORGANIC CHEMISTRY

ROBERT THORNTON MORRISON

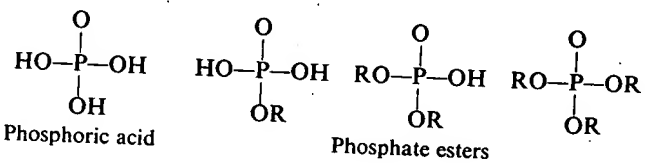
ROBERT NEILSON BOYD

New York University

ALLYN AND BACON, INC.

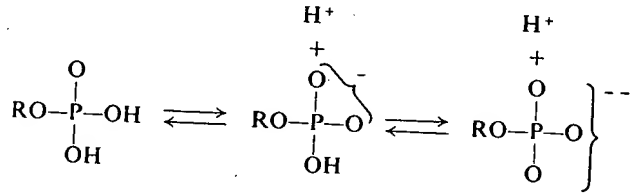
BOSTON
LONDON
SYDNEY
TORONTO

To begin with, phosphates come in various kinds. Phosphoric acid contains three hydroxy groups and can form esters in which one, two, or three of these have been replaced by alkoxy groups. Phosphoric acid is highly acidic, and so are the



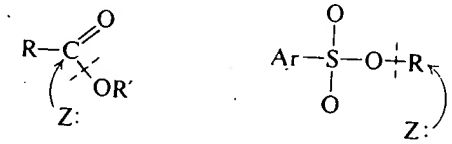
Phosphoric acid Phosphate esters

monoalkyl and dialkyl esters; in aqueous solution they tend to exist as anions, the exact extent of ionization depending, of course, upon the acidity of the medium. For example:

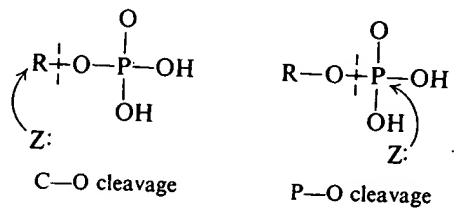


Like other esters, phosphates undergo hydrolysis to the parent acid and alcohol. Here, the acidity of —OH attached to phosphorus has several effects. In the first place, since acidic phosphate esters can undergo ionization, there may be many species present in the hydrolysis solution. A monoalkyl ester, for example, could exist as dianion, monoanion, neutral ester, and protonated ester; any or all of these could conceivably be undergoing hydrolysis. Actually, the situation is not quite that complicated. From the dissociation constants of these acidic esters, one can calculate the fraction of ester in each form in a given solution. The dependence of rate on acidity of the solution often shows which species is the principal reactant.

In carboxylates, we remember, attack generally occurs at acyl carbon, and in sulfonates, at alkyl carbon, with a resulting difference in point of cleavage. In



hydrolytic behavior, phosphates are intermediate between carboxylates and sulfonates. Cleavage can occur at either position, depending on the nature of the alcohol group.



C—O cleavage P—O cleavage